4 IMPACTS TO UNION PACIFIC RAILROAD FREIGHT OPERATIONS

4.1 Impacts on Union Pacific Railroad Freight Operations

This new chapter addresses how the No Project and HST alignment alternatives have the potential to affect the UPRR's freight operations. This chapter also addresses the potential for secondary environmental impacts that may occur if the Authority must implement design or mitigation strategies to avoid adversely affecting the UPRR's use of its right-of-way, rail spurs, and general freight operations. The purpose of this analysis is to examine how the physical environmental changes potentially created by HST alignment alternatives could affect the UPRR's physical freight operations directly or indirectly. Because CEQA does not treat economic changes as significant effects on the environment in and of themselves, this chapter focuses on the potential for physical changes to UPRR freight operations, rather than on the economic aspects of these changes.

The *Town of Atherton* court ruling identified the need for a revised analysis of potential impacts of the HST on UPRR freight operations in the stretch of alignment between San Jose and Gilroy. The following discussion is broader than San Jose to Gilroy to ensure the public and the decision makers have sufficient information to compare the alignment alternatives in each corridor. This information will contribute to an improved understanding of how the various network alternatives (i.e., combinations of alignment alternatives into an overall network) compare on this issue of impacts to UPRR freight operations.

For all of the alignment alternatives in the study area, it may be necessary to cross from one side of a private railroad's (e.g., UPRR's) mainline tracks and right-of way to the other. For these circumstances, the HST would go under (trench or tunnel) or fly over (aerial alignment) the private railroad's property and tracks providing adequate vertical and horizontal clearances as required by California Public Utilities Commission General Order 26-D and consistent with the private railroad's standards and procedures (Public Utilities Commission of State of California 1981, BNSF Railway–Union Pacific Railroad 2007).

4.1.1 Method of Evaluation of Impacts

A. REGULATORY REQUIREMENTS

US Code - Title 49: Transportation - 49 U.S.C 10906 exempts some types of rail operations and transactions from the U.S. Department of Transportation, Surface Transportation Board (STB) regulations. This section states:

"Notwithstanding section 10901 and subchapter II of chapter 113 of this title, and without the approval of the (Surface Transportation) Board, a rail carrier providing transportation subject to the jurisdiction of the Board under this part may enter into arrangements for the joint ownership or joint use of spur, industrial, team, switching, or side tracks."

"The (Surface Transportation) Board does not have authority under this chapter over construction, acquisition, operation, abandonment, or discontinuance of spur, industrial, team, switching, or side tracks."

The current regulatory scheme governing abandonments and acquisitions to preserve service seeks to balance the needs of the shippers, railroads, and the ultimate customers. The STB has a formal process for considering abandonments and alternatives to abandonment of railroad track. The STB has exempted the abandonment of out-of-service lines over which no local traffic has moved for at least 2 years without formal complaint about a lack of service. Where a line has generated traffic

within the last 2 years, the railroad may seek to persuade the STB that an exemption is nevertheless appropriate for that individual line (STB 1997). These exemptions are widely used.

B. GENERAL METHOD OF EVALUATION

The impacts analysis was performed by examining the existing conditions along the various HST alignment alternatives and identifying existing rail spurs, junctions, and branches along the freight rail corridor utilizing aerial maps.

C. CEQA SIGNIFICANCE CRITERIA

For purposes of this Program EIR, impacts under CEQA are considered significant if the project would:

- Eliminate an existing rail spur that provides access to a freight customer without provision of replacement access.

4.1.2 Affected Environment

A. STUDY AREA DEFINED

The study area for this analysis is defined as locations where the HST was proposed to run in or immediately adjacent to an active railway right-of-way owned by the UPRR. These locations are described in Chapter 3, section 3.2.2. Figure 4-1 provides a view of a typical spur track or siding.

Figure 4-1
Typical Spur Track or Siding

B. EXISTING UPRR RAIL SPURS AND JUNCTIONS BY HST CORRIDOR

Discussed below and listed in Table 4-1 are the number of existing rail spurs and junctions along the UPRR line within the HST corridors.

Table 4-1
Existing Spurs and Junctions along the UPRR Lines

HST Corridor	Spurs/Junctions along UPRR Lines
San Francisco to San Jose Corridor	19
Oakland to San Jose Corridor (19th Avenue in Oakland to Mission Boulevard in Fremont)	18
San Jose to Central Valley Corridor (Diridon Station in San Jose to south of Gilroy)	10
East Bay to Central Valley Corridor (Fremont to Lathrop, via Livermore and Tracy)	16
San Francisco Bay Crossings (Dumbarton line west of San Francisco Bay; Newark and Fremont east of San Francisco Bay)	4 – west of San Francisco Bay 4 – east of San Francisco Bay
Central Valley Corridor (Stockton to Fresno County)	35

San Francisco to San Jose Corridor

Between San Francisco and San Jose, there are 19 freight leads and spurs.

Oakland to San Jose Corridor

From 19th Avenue in Oakland to Mission Boulevard in Fremont, 18 spurs and junctions were identified along the UPRR corridor.

San Jose to Central Valley Corridor

From Diridon Station in San Jose to south of Gilroy, 10 spurs were identified along the UPRR corridor.

East Bay to Central Valley Corridor

From Fremont to Lathrop, via Livermore and Tracy, 16 spurs or junctions were identified.

San Francisco Bay Crossings

On the Dumbarton line, west of the bay, four spurs exist. East of the bay, in Newark and Fremont, there is one spur but three junctions with the UPRR.

Central Valley Corridor

From Stockton to Fresno County, along the UPRR, there are 35 junctions and spurs.

4.1.3 Environmental Consequences

A. NO PROJECT ALTERNATIVE

Under the No Project Alternative, it is assumed that the UPRR would continue to maintain and utilize its existing rail spurs. Based on written communications UPRR has provided to the Authority, it is also assumed that UPRR would seek to expand its freight operations by constructing additional spurs or improving existing spurs. As part of this study, it was not possible to specifically identify or quantify improvements that UPRR expects to implement by 2030.

B. HIGH-SPEED TRAIN ALIGNMENT ALTERNATIVES

San Francisco to San Jose Corridor

It is the intent of the HST program that UPRR would retain its current trackage rights in this corridor, and that the future use of the spurs would not be precluded. In areas such as South San Francisco where it may be necessary to relocate the UPRR's yard operations, additional right-of-way outside of the existing Caltrain corridor may be required. It is intended that the current utility would be maintained for freight operations. UPRR rail spurs would most likely be reconfigured to remain within the existing Caltrain or UPRR right-of-way on the corridor. Minor additional strips of right-of-way may be required to accommodate the freight spur moves.

Oakland to San Jose Corridor

In this corridor, 18 spurs and junctions were identified along the UPRR between 19th Avenue in Oakland and Mission Boulevard in Fremont. HST runs on the east side of the UPRR in this corridor, so eight spurs and junctions on the west side of the UPRR would not be affected by HST.

On the east side, there are four locations in Oakland and two in Union City where there are existing spurs or sidings off the east side of the UPRR that would be affected by the HST. The Oakland conflicts occur over three miles between High Street and 98th Avenue, where the HST would run at grade. The Union City spurs are very close together, near the existing Union City BART Station. The remaining locations, two rail junctions near the mouth of Niles Canyon in Fremont, and the New United Motor Manufacturing, Inc. (NUMMI)/Warm Springs Yard in Fremont, the HST alignment would be elevated and therefore not interfere with the UPRR tracks, which would remain at grade.

San Jose to Central Valley Corridor

Ten spurs were identified in this corridor, all located between Diridon Station in San Jose and just south of Gilroy, near Carnadero Junction. The HST alignment would run west of the existing Caltrain/UPRR tracks to the Caltrain Tamien Station, and east of the existing tracks to Lick, in the Caltrain/PCJPB-owned right of way from Diridon Station to Lick. In crossing over freight and passenger tracks the HST would be on an aerial alignment with no interference to the existing tracks. At Lick, which is the beginning of the UPRR ownership of the right-of-way, the HST alignment would run adjacent to the east side of the UPRR right-of-way. This alignment would be on aerial structure to pass over a spur in Morgan Hill and three in Gilroy, but run at grade across one spur north of Gilroy, severing it from the UPRR.

East Bay to Central Valley Corridor

This corridor has three areas where the HST could affect UPRR freight services. The first is the corridor between I-680 in Pleasanton and Livermore on the UPRR alignment alternative. In this area, there are 5 spurs or other facilities. Along Stanley Boulevard, the UPRR serves a large quarry and maintains long siding parallel to the mainline. The HST alignment would be at grade in this area, to the east of the UPRR right-of-way, so it would conflict with the spur for the quarry. Moving east, there is a short spur in downtown Livermore and two industrial spurs in East Livermore, near Vasco Road. These spurs are shown in Figures 4-2 and 4-3. The HST would also conflict with these spurs.

In the Tracy area, there are two potential HST alignment alternatives. Along the Tracy Downtown (UPRR Connection) alignment alternative, there are six spurs and junctions. Five fall within a mile near the proposed Tracy downtown station, but only one conflicts with the HST, which would be on the north side of the UPRR. This is the North Tracy Industrial Spur, near MacArthur Avenue. Another conflict occurs in south Lathrop, where the HST S UPRR alignment alternative would cross a short freight spur. On the Tracy ACE Station alignment alternative, which passes south of the City of Tracy, the HST would cross the junction with the Westside Branch (Figure 4-4), but there would be no conflict as the HST alignment would be grade separated from the freight line.

Figure 4-2
Livermore Spur

Figure 4-3
East Livermore Industrial Spur

Figure 4-4
Westside Branch Junction in Tracy

The Tracy Downtown (UPRR Connection) alignment alternative passes a small rail yard east of downtown Tracy (Figure 4-5). It is possible that the yard would need to be reconfigured to accommodate the HST as it passes to eliminate the need to acquire additional right-of-way.

San Francisco Bay Crossings Corridor

This corridor has two distinct conditions. From the Caltrain mainline at Redwood Junction to Newark, the right-of-way is owned by the San Mateo County Transportation District and freight service would be operated under the same conditions as along the PCJPB owned line on the peninsula for any freight users on the west side of San Francisco Bay. On the east side of the bay, the Dumbarton alignment alternative would avoid conflicts with UPRR freight by passing over UPRR tracks where they intersect.

Central Valley Corridor

The Central Valley UPRR N/S alignment alternative, from Stockton to Fresno County would follow the UPRR and SR-99 for its entire distance. It would generally run at grade on the west side of the UPRR, but crosses to the east side near the junction with the line running east-west in Chowchilla. There are about 35 locations where a junction or spur leaves the UPRR mainline. In about half the cases, the HST alignment would run on the same side of the UPRR, but in Keyes, Turlock, Atwater, Chowchilla and Madera, the HST would be elevated to alleviate conflicts with the freight operations, leaving only spurs in French Camp (1), Ripon (2), Salida, Downtown Modesto (3), the junction with a branch line just south of Modesto, an industrial spur in south Chowchilla, north Madera and south of downtown Madera in conflict with the HST. The remaining half of the spurs and junctions would be on the opposite side of the UPRR mainline from the HST alignment. Figure 4-6 shows a silo served by a spur from the UPRR. The HST alignment would be elevated to pass over the spur, allowing uninterrupted access from the mainline to the facility.

Figure 4-5
Tracy Rail Yard

Figure 4-6
Spur Serving Large Silo along UPRR

4.1.4 Role of Design Practices in Avoiding and Minimizing Effects

The Authority plans to avoid creating adverse impacts for freight operations by adhering to the following design practices in the project-level planning and environmental review process:

- HST alignments will be designed so as not to affect UPRR operations on its main lines, leads, and spurs. Specifically, HST alignments will be grade separated from UPRR rights-of-way at those locations where HST alignments would need to cross over or under UPRR operating rights-of-way.
- HST alignments will be designed to minimize impacts to existing UPRR business-serving spurs where feasible. The Authority will work with UPRR for those locations where design of the HST alignment may affect these business-serving spurs. The following options will be jointly evaluated in concert with the UPRR:
    - The HST alignment will be grade-separated (trench, tunnel, or aerial) from the UPRR spur.
    - The Authority will negotiate with the UPRR to acquire the business-serving spur.
    - If possible, the spur will be reconstructed so as not to interfere with HST operations.

With regard to the business implications of acquiring properties adjacent to the railroad operating rights-of-way that may prohibit or reduce the likelihood of future business-serving spurs and associated potential business opportunities for UPRR, the Authority is fully aware that there currently is no prohibition to acquiring property adjacent to existing privately-owned railroad rights-of-way.[1] UPRR will retain authority to serve those businesses on properties or track rights-of-way owned by the UPRR.

4.1.5 Mitigation Strategies and CEQA Significance Conclusions

Based on the analysis above, and considering the design practices described above, the HST alignment alternatives are not expected to result in significant adverse effects to UPRR freight operations. At the program level, however, sufficient uncertainty exists about the precise design practices to avoid impacts and their effectiveness across all portions of the alignment alternatives that this impact must be considered potentially significant out of an abundance of caution. The following types of mitigation strategies will avoid or reduce impacts:

- Construct grade separation in the form of an HST aerial flyover or underpass to preserve access to existing rail spurs and branch lines.
- Consolidate consecutive spur tracks that occur over a short distance to minimize the need for multiple grade separations.
- Relocate team tracks (Figure 4-7) to the opposite side of the UPRR in locations where they conflict with HST. A team track is a small railroad siding or spur track intended for the use of area merchants, manufacturers, farmers and other small businesses to personally load and unload products and merchandise, usually in smaller quantities.
- For silo or quarry operations, provide new loading/unloading facilities with augers and conveyors that pass over or under the HST alignment to a siding on the UPRR mainline that alleviates the need for a UPRR spur to cross the HST.
- To the extent possible, the schedule for construction will be coordinated with existing rail operators to minimize impacts to existing operations.

[1] The Authority understands that it must comply with the Federal Railroad Administration's and the State of California Public Utility Commission's provisions regarding the safety associated with a shared corridor.

These strategies, in concert with ongoing negotiations with UPRR, are expected to ensure that the HST alignment alternatives will not result in adverse impacts to UPRR freight operations.

4.1.6 Secondary Environmental Impacts From Avoiding/Mitigating Effects on UPRR Freight Operations

Avoidance and/or mitigation measures will be further refined as part of future project-level design and analysis. Avoiding or mitigating impacts to UPRR freight operations, such as by a grade separation, could in itself result in secondary environmental impacts. There may be the need to acquire additional property which could contain sensitive resources such as biological, cultural, and water resources or construction could disturb hazardous materials and utilities. The acquisition of property may result in the displacement and relocation of businesses and residences or result in conversion of agricultural land. New grade separations could also result in visual, noise, and vibration impacts. Construction of avoidance alternatives or implementation of mitigation measures could also result in dust or other air emissions as well as noise and vibration impacts. Such impacts will be examined in detail at the project level because they are a product of the HST system design, and the detail necessary to identify the presence of the impact, the level of significance, and mitigation can only be done at the project level. Refer to Chapters 3 of the May 2008 Final Program EIR for a discussion of the types of mitigation strategies to be utilized to mitigate secondary impacts.

4.1.7 Subsequent Analysis

This analysis is programmatic and addresses generally how the HST alignment alternatives might affect UPRR freight operations and how the Authority can take steps to ensure UPRR's freight operations are not affected adversely. Subsequent planning and project-level environmental documents will identify the precise proposed engineering designs and analyze in more detail how the Authority proposes to avoid adverse effects to UPRR facilities and services and what environmental effects may occur from taking such steps.

Figure 4-7
Typical Team Track Facility